OPERATIONAL LOGISTIC SUPPORT SUMMARY (OLSS)

FOR

PRC-2000-MINIATURE/MICROMINIATURE (2M) SYSTEM

Published by Direction of Commander, Naval Sea Systems Command

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CHANGES AND REVISIONS

PURPOSE THIS DOCUMENT HAS BEEN PREPARED IN ACCORDANCE WITH NAVSEAINST 5000 39 Enclosure (6b) WHICH DETAILS THE OLSS REQUIREMENTS FOR COMMERCIAL EQUIPMENT IT ONLY COVERS THE EQUIPMENT AND SUPPORT FOR THE NAVY PRC-2000-MINIATURE/MICROMINIATURE (2M) SYSTEM

EQUIPMENT ALTERATION NUMBERS INCORPORATED NONE

TMDER/ACN NUMBERS INCORPORATED NONE

CONTINUE ON REVERSE SIDE OR ADD PAGES AS NEEDED

CERTIFICATION STATEMENT

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PRC-2000-MINIATURE/MICROMINIATURE (2M) SYSTEM

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NUMERICAL INDEX OF EFFECTIVE SECTIONS/PAGES

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26QQ1	SPECIAL WARFARE GROUP, UNIT AND DETACHMENT LANT
26QQ2	SPECIAL WARFARE GROUP, UNIT AND DETACHMENT PAC
26Z1	SHORE INTERMEDIATE MAINTENANCE ACTIVITY LANT
26Z2	SHORE INTERMEDIATE MAINTENANCE ACTIVITY PAC
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29B	AIRCRAFT CARRIER (CV) (CVN)
29E	DESTROYER (DD) 963 CLASS
29F	GUIDED MISSILE DESTROYER (DDG)
29AA	GUIDED MISSILE FRIGATE (FFG)
31A	AMPHIBIOUS COMMAND SHIP (LCC)
31H	AMPHIBIOUS ASSAULT SHIP (LHA) (LPH)
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32H	FAST COMBAT SUPPORT SHIP (AOE)
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A5	Chief of Naval Personnel Washington, DC (N406D)
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FT30	SERVSCOLCOM Great Lakes, IL
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FT95	SUBTRAPAC San Diego, CA
V23	CG MCLB Albany, GA (884)
V28	COMMARCORPSYSCOM Quantico, VA (PST)
B5	COMDT COGARD Washington, DC (G-ENE-2B)

FOREWORD

This Operational Logistic Support Summary (OLSS) has been prepared in accordance with NAVSEAINST 5000.39, Enclosure (6b), which details the OLSS requirements for commercial equipment. It only covers the equipment and support for the Navy PRC-2000-Miniature/ Microminiature (2M) System.

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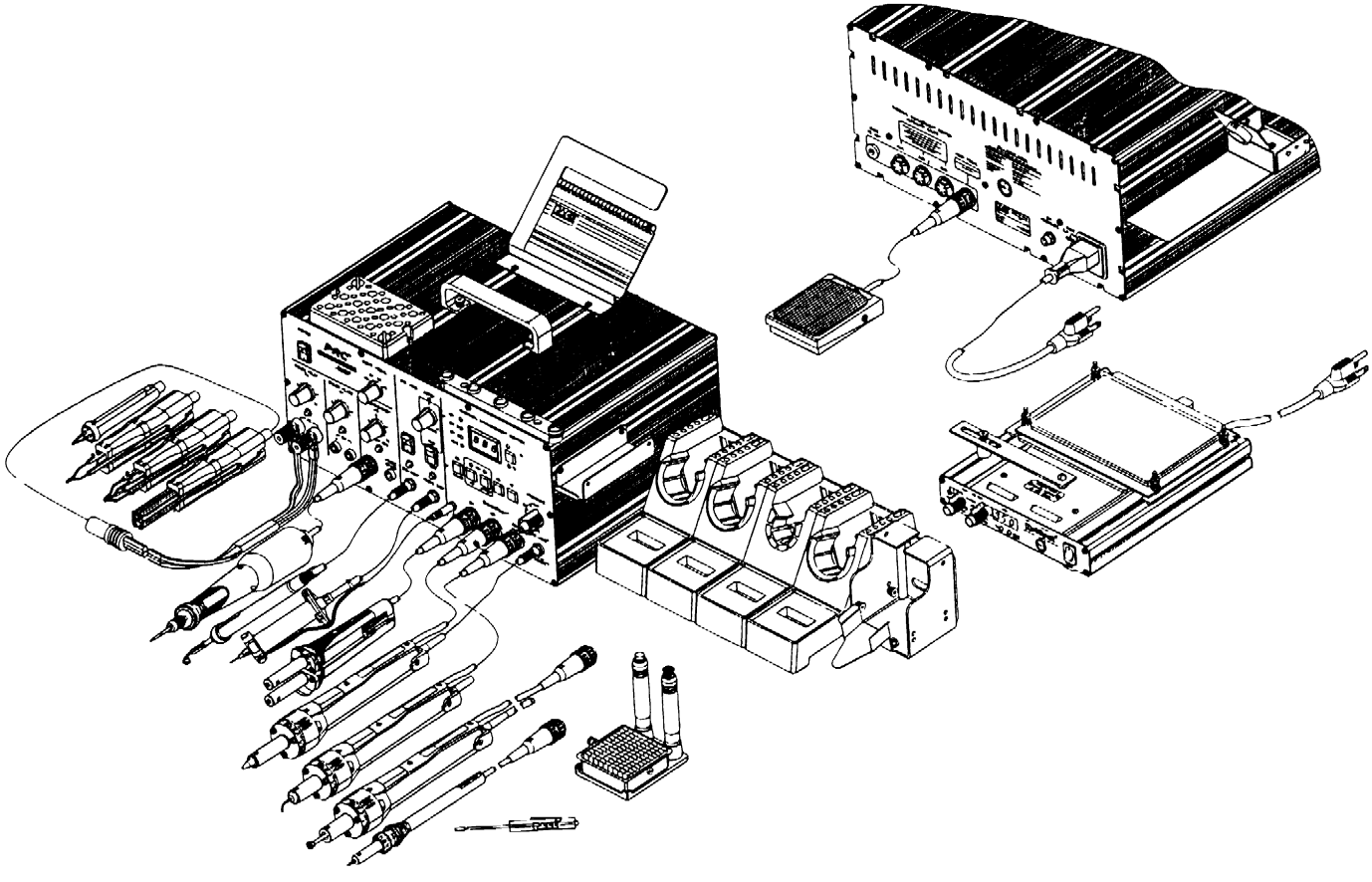
FIGURES

1.0 EQUIPMENT DESCRIPTION

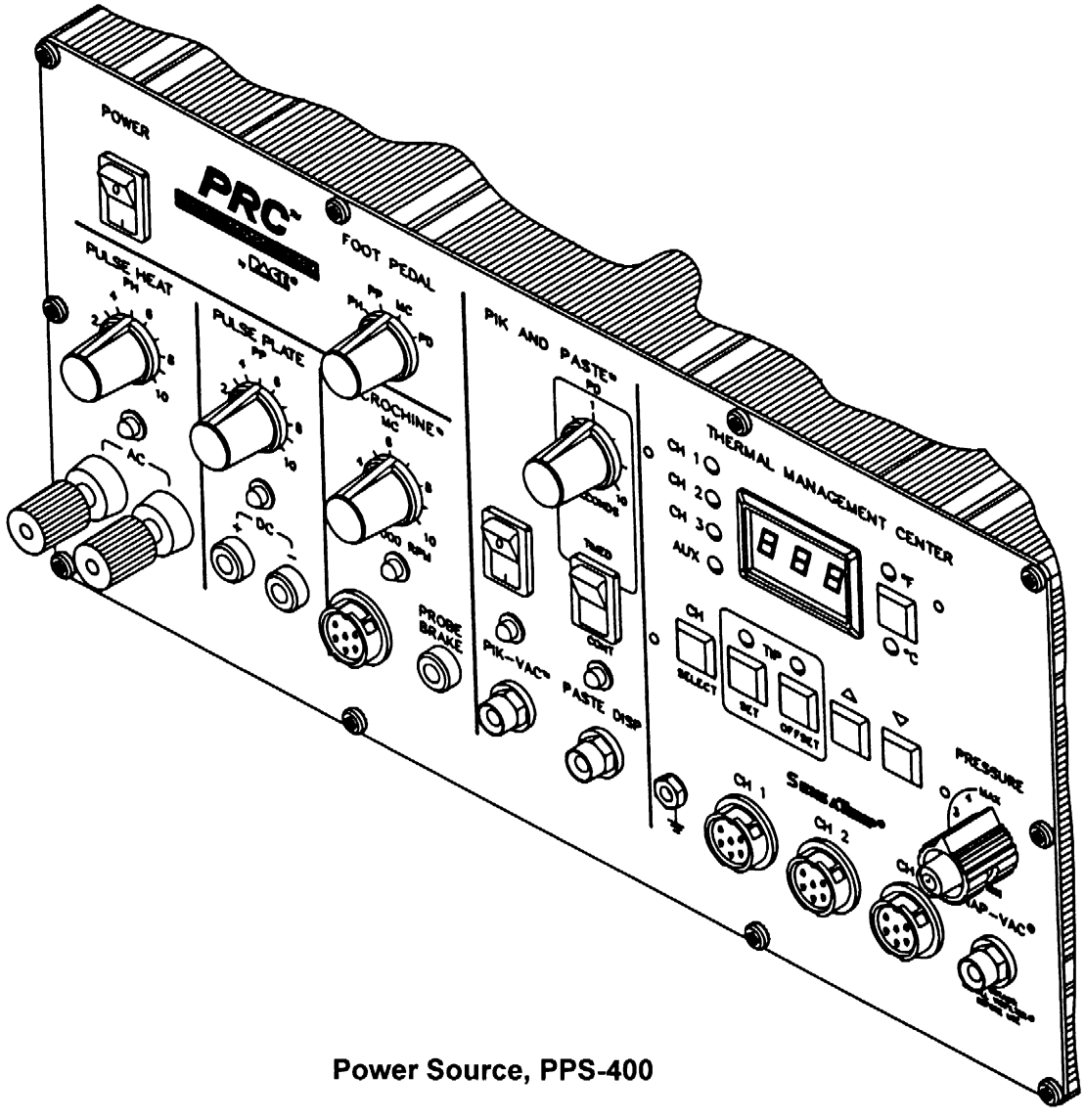
1.1 Physical Description. The PRC-2000-Miniature/Microminiature (2M) System is a **commercial**, **off-the-shelf**, process control system for universal assembly and repair of electronic assemblies (see FIGURE 1) The PRC-2000-2M System is the current microminiature rework power unit configuration utilized in the NAVSEA 2M electronic repair program The system contains two primary equipments, the Power Source, PPS-400 and Hot Spot HS-150 What follows is a brief description of each



PRC-2000-2M SYSTEM

FIGURE 1

1.1.1 Power Source, PPS-400. The Power Source primarily houses three pumps and three printed circuit boards (PCBs) The three pumps, Motor Pump Assembly (Pump 1), Micropump Assembly, PPS 400 (Pump 2), and Pump Assembly, Low Pressure, 21V (Pump 3) provide pressurized air and vacuum for the Thermal Management Center, Paste Dispenser, and Pik-Vac respectively The Microprocessor PCB measures and controls the handpiece temperature established by the operator The Multifunction PCB is used to provide status and control for Pulse Heat, Pulse Plate, Paste Dispenser, Pik-Vac, and MicroChine functions The board interfaces to front panel controls and indicators via wire harnesses It also interfaces to power supply voltages, the Pulse Heat transformer, Pik-Vac vacuum pump (Pump 3), and Paste Dispenser motor pump assembly (Pump 2) The Display PCB contains the LEDs and temperature control switches for the Thermal Management Center The Power Source front panel controls are divided into five functional sections, the Thermal Management Center, Pik and Paste, MicroChine, Pulse Heat, and Pulse Plate (see FIGURE 2) The following is a brief description of each section



Power Source, PPS-400

FIGURE 2

1.1.1.1 The Thermal Management Center occupying the right 1/3 of the front panel provides three adjustable output channels to supply low voltage (14VDC) to a soldering iron, solder extractor, and three other specialized handpieces (ThermoTweez, ThermoPik, and Mini ThermoJet). These handpieces are utilized for installation and removal of surface mount and thru-hole electronic components. Three auxiliary channels (rear panel) provide control of separately sold AC line-powered accessories which are currently not a part of the current PRC-2000-2M System. Just to the left of the front panel channels is a grounding jack which will accept a standard banana plug. This can be used for grounding the operation, the work or additional equipment. To the right of the front panel channels are vacuum and controllable pressure ports. These ports provide vacuum and pressure to the solder extractor and Mini ThermoJet respectively for removing and reflowing solder.

1.1.1.2 The Pik and Paste section is located in the middle of the front panel and is divided into two parts. The Pik-Vac system occupies the left half of the Pik and Paste section. The Pik-Vac provides a vacuum source (3 in. Hg.) to the Pik-Vac wand for use in handling and placing surface mount parts. The paste dispensing system occupies the right half of the Pik and Paste section and can dispense a variety of solder cremes, fluxes, potting compounds and adhesives. The Paste Dispense air hose accepts standard 10cc material barrels. The self-contained pump supplies nominal 40psi (.28 Mpa) of air pressure to the syringe via the Paste Disp port. Above the Paste Disp port is a 2-position switch labeled Timed and Cont which provides timing control for precise dispensing of solder paste and other materials.

1.1.1.3 The MicroChine section located just to the left of the Pik and Paste section provides power and variable speed control to a self-contained motor machining handpiece for precise circuitry and substrate repair. With its tachometer feedback, the MicroChine maintains controlled drilling and milling rates under varying loads. Just to the right of the MicroChine handpiece connection is the Probe Brake jack. The Probe Brake feature instantly stops machining at a selected substrate layer depth when the probe is connected between the jack and a conductive element on the circuit card assembly where the operator wishes the machining to stop.

1.1.1.4 The Pulse Plate section located just to the left of the MicroChine section allows the operator to safely replate damaged, worn or repaired connectors, circuit contacts and edge connectors using plating solutions. This section is not utilized by the 2M electronic repair program.

1.1.1.5 The Pulse Heat section located at the lower left of the front panel provides variable controlled, low voltage AC pulse power to various specialized handpieces including the LapFlo, ResisTweez, ConducTweez, and Strip Tweez for surface mount rework, circuitry repair, conformal coating removal and thermal wire stripping.

1.1.1.6 Power Source, PPS-400 Performance Parameters.

Power Requirements: Operates on 115 VAC, 60 Hz 400 Watts

Physical Parameters:
Size: 35cm W x 17.5cm H x 23cm D (13.75" W x 6.9" H x 9.25" D)
Weight: 13.6 Kg (30 lbs.)

Environmental Requirements
Ambient Operating Temperature 0°C to 50°C (32°F to 120°F)
Storage Temperature -40°C to 100°C (-40°F to 212°F)

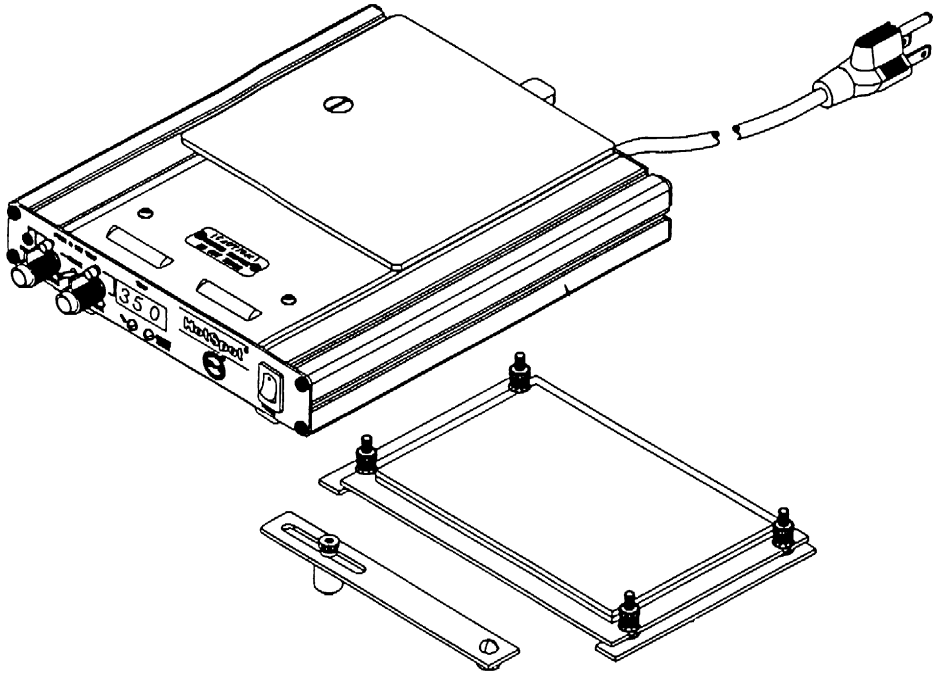
Vacuum and Air
Measurements at front panel SNAP-VAC and Controllable PRESSURE Ports of power source

Vacuum Rise Time	Evacuates 33 cc (2 cubic inches) volume to 25 cm Hg (10 in Hg) in 150 ms
Vacuum	51 cm Hg (20 in Hg) (nominal)
Pressure	48 Bar (7 P S I) (nominal MAX setting)
Air Flow	13 SLPM (0 46 SCFM) maximum

Temperature Specifications
Tip Temperature Range 38°C to 482°C (100°F-900°F)
Digital Readout Resolution ±1° (°C or °F)
Tip Temperature Stability ±1 1°C (2°F) at idle from Set Tip Temperature

Electrostatic Discharge (ESD)
Tip-To-Ground Resistance Less than 5 ohms
AC Leakage Less than 2 millivolts RMS from 50Hz to 500Hz, min

1.1.2 Hot Spot, HS-150 (Closed-Loop Temperature-Controlled Auxiliary Heating System).
The Hot Spot primarily consists of a Surface Plate Heater Assembly and two PCBs (Main/Display) (see FIGURE 3)



Hot Spot, HS-150

FIGURE 3

The purpose of the Hot Spot is to provide controlled heating of high thermal mass assemblies, substrates, and components to promote rapid solder reflow while preventing thermal shock. The Hot Spot's capabilities support a flexible range of applications, including surface-mounted assemblies, ceramic substrates, multilayer boards, hybrid assemblies, and ceramic components. Temperature for both the heating surface and workpiece can be pre-set and digitally displayed. The digital temperature display allows the operator to monitor the precise temperature of the heating surface.

1.1.2.1 Hot Spot, HS-150 Performance Parameters.

Power Requirements: Operates on 115 VAC, 50/60 Hz 250 Watts, 3.15 Amps

Physical Parameters:
Size: 193mm W x 55mm H x 226mm D (7.60" W x 2.15" H x 8.90" D)
Heating Plate Surface: 140mm W x 140mm D (5.50" W x 5.50" D)
Weight: 1.7 Kg (3.7 lbs.)

Temperature Specifications:
Operating Temperature Range: 38°C to 200°C (100°F-400°F)
Temperature Stability: ±8°F of set point, 1 degree resolution

1.2 Options/Accessories. TABLE 1, lists the CURRENT EQUIPMENT CONFIGURATION of the PRC-2000-2M System, including options/accessories, available in the Navy's Inventory at NAVSURFWARCENDIV Crane IN.

TABLE 1 CURRENT EQUIPMENT CONFIGURATION

NOMEN	FUNCTION	REF DES	PART NUMBER
PRC-2000	Power Source, PPS 400, 115V W/Accessories	1	7908-0187
PRC-2000	Power Source, PPS 400, 115V	1A1	7008-0187
	Cleaning Station, SMT	1A2	6021-0006
	Foot Pedal, Treadline	1A3	6008-0115
SX-70	Extractor, Solder, W/Accessories	1A4	6910-0077
SP-2	Sodr-Pen, 21V 48W, W/Accessories	1A5	6925-0014
TJ-70	Thermojet, Mini	1A6	7923-0002
TP-65	Thermopik, W/Accessories	1A7	7924-0001
TT-65	Thermotweez, W/Accessories	1A8	7925-0001
MC-65	Microchine	1A9	7926-0001
PV-65	Pik-Vac	1A10	7027-0001-P1
TW-15	Resistweez, W/Accessories	1A11	7909-0005
TS-15	Striptweez Handpiece	1A12	7012-0002-P1
LF-15	Lapflo, W/Accessories	1A13	7913-0004-02
CT-15	Conductweez Handpiece, W/Accessories	1A14	7920-0001
	Kit, Paste Dispenser	1A15	6993-0152
HS-150	Hot Spot 150 W/Accessories	2	8040-0001

1.3 Identification.

Nomenclature - 8007-0161(17794), PRC-2000-2M System
Noun Name - PRC-2000-2M System
Manufacturer - PACE INC Laurel MD
Commercial and Government Entity (CAGE) - 17794
National Stock Number (NSN) - 3439-01-415-4165
Subcategory (SCAT) Description - N/A
SCAT Code - N/A
EIC - WR1P000
Generic Code - N/A
Shore Family Group Code - N/A
Metrology Automated System for Uniform Recall and Reporting (MEASURE) Inventory Number - N/A
Calibration Interval - N/A

2.0 LOGISTIC SUPPORT

2.1 Maintenance Practices.

2.1.1 Navy Support.

2.1.1.1 Maintenance Concept Summary. The PRC-2000 is located in the Printed Circuit Board (PCB)/ Module Test and Repair (MTR) Shop or other area as designated by the Commanding Officer (CO) and/or his authorized representative. The PRC-2000-2M System is used at both the Organizational (O) and Intermediate (I) levels to perform repairs on electronic assemblies to include all types of component removal/installation, circuit board preparation and repair. Maintenance, both preventive and corrective/unscheduled maintenance, is to be performed by the 2M technician using a functional 2M rework power unit to perform the repairs. For this system there is no difference in maintenance performed at the O and I-level as both are performing O-level maintenance as far as the PRC-2000-2M System is concerned.

2.1.1.1.1 Organizational Maintenance.

2.1.1.1.1.1 Preventive Maintenance. PRC-2000-2M System preventive maintenance will be accomplished in accordance with OPNAVINST 4790.4 by existing organizational level Navy 2M personnel. Planned Maintenance System (PMS) requirements are detailed on Maintenance Index Page (MIP), Control Number 6652/005, and its associated Maintenance Requirements Cards (MRCs). Deficiencies/recommendations will be reported on OPNAV Form 4790.7B, Planned Maintenance System Feedback Report (PMS FBR). Maintaining the functional ability of the PRC-2000 by routine cleaning, care, and handling is covered in the PRC-2000-2M System Electronic Rework Power Unit Operation and Maintenance Manual (S9665-CY-OMP-010/PRC-2000/U).

2.1.1.1.1.2 Corrective/Unscheduled Maintenance. PRC-2000-2M System corrective or unscheduled maintenance will also be accomplished by existing organizational level Navy 2M personnel. The PRC-2000-2M System has some built-in test capabilities to aid in troubleshooting. The PRC-2000-2M System Electronic Rework Power Unit Operation and Maintenance Manual (S9665-CY-OMP-010/PRC-2000/U) provides the required technical

information to allow the 2M technician to troubleshoot the system using readily available General Purpose Electronic Test Equipment (GPETE), (Fluke 77/BN Digital Multimeter). In addition, AN/USM-646 Test Station Gold Disks have been developed by NAVUNSEAWARCEN DET Norfolk to aid the 2M technician in locating the defective component in the following Power Source PCBs:

Gold Disk No.	PCB Part No.
001640011.R00	6020-0072, Microprocessor PCB
001640050.R00	6020-0073, Display PCB
001640007.R00	6020-0074, Multifunction PCB

Repairs to the PCBs can be performed at other 2M repair sites on the ship or, in cases where no other repair stations are available, taken to another O-level repair site. If replacement component(s) are not available or repair of the PCB is not technically feasible, a replacement PCB will be requisitioned from the Navy Supply System. Upon replacement of any component and/or PCB all applicable part(s) of the PRC-2000-2M System Electronic Rework Power Unit Operation and Maintenance Manual (S9665-CY-OMP-010/PRC-2000/U, Operation section), shall be performed.

2.1.1.1.1.3 Maintenance Reporting. OPNAVINST 4790.4C, Ships' Maintenance and Material Management (3-M) Manual reporting procedures are adequate for the PRC-2000-2M System. Deficiencies/recommendations for planned maintenance will be reported on OPNAV Form 4790.7B, Planned Maintenance System Feedback Report (PMS FBR). All corrective maintenance for the PRC-2000 will be reported in accordance with OPNAVINST 4790.4C, Chapter 6, ORGANIZATIONAL LEVEL MAINTENANCE 3-M REPORTING REQUIREMENTS and Chapter 7, INTERMEDIATE LEVEL MAINTENANCE 3-M REPORTING REQUIREMENTS.

2.1.1.1.2 Intermediate Maintenance. Intermediate level maintenance will be the same as the Organizational level, listed in the preceding paragraphs.

2.1.1.1.3 Depot Maintenance. For the first year, the PRC-2000-2M System will be covered by a 1 year manufacturer's warranty from defects in material and/or workmanship. After the first year, the 2M ISEA will serve as the depot for the PRC-2000. Requests for technical assistance in the resolution of maintenance problems beyond the capability of organizational and intermediate level maintenance activities will be directed to the nearest Fleet Technical Support Center (FTSC) Detachment for the fleet and the 2M ISEA for 2M training sites and/or FTSC Detachments. All failed UNITs of the PRC-2000 will be returned to the 2M In-Service Engineering Agent (ISEA) for repair and/or disposal.

2.1.2 Calibration Suppport. System calibration of the PRC-2000 is not required. All PRC-2000 power supplies are calibrated before they leave the factory to meet all PACE Inc. published specifications. The power supply automatically re-calibrates itself every 4 minutes of operation. No external re-calibration is required. The SensaTemp handpieces will continue to meet their specifications as long as proper maintenance is practiced when caring for the heater and tips. If there is a requirement to check the actual tip temperature of a SensaTemp handpiece, procedures for attaching a thermocouple wire to the handpiece tip can be found in the PRC-2000-2M System Electronic Rework Power Unit Operation and Maintenance Manual (S9665-CY-OMP-010/PRC-2000/U, Service Manual section). Pulse Heat handpieces are not closed loop temperature controlled and require no calibration. The two circuit card assemblies within the Hot

Spot HS-150 (p/n 6020-0042 PCB ASSY, MAIN & p/n 6020-0043 PCB ASSY, DISPLAY) are a matched pair and replaced as one assembly. A 2M repair technician can troubleshoot and replace components on either card but a calibration procedure will then have to be performed to ensure proper operation after the repair (refer to S9665-CY-OMP-010/PRC-2000/U, Service Manual Addendum, HS 150 Calibration Procedure). The following support parts were identified as being necessary to perform the calibration procedure:

178 ohm resistor, p/n RNC55H1150FS, 9N 5905-00-484-7889, 1/ea
115 ohm resistor, p/n RNC55H1780FS, 9N 5905-00-459-2793, 1/ea

The resistors have been included on the PRC-2000-2M System Allowance Parts List (APL) 00032540.

2.1.3 Manufacturer's Support. PACE INCORPORATED warrants to the initial user that the PRC-2000-2M System will be free of workmanship and material defects for a period of one year from the date of receipt, if purchased from PACE INCORPORATED or an authorized distributor. Any deficient or damaged parts should be returned to the manufacturer prepaid. Replacement or repair will be done at no charge, providing the parts or equipment have not been mishandled or misused, as determined by the manufacturer. This warranty does not include those items which the manufacturer deems consumable, such as, heaters, tips, filters, chemicals, etc. Factory Authorization is required for the return of materials. The warranty is void if: (a) The PACE Inc. identification plate or plates have been altered or tampered with in any way; (b) The Equipment Warranty Registration Card is not completed and returned to PACE Inc within 30 days from date of receipt.

2.2 Support Equipment. No unique support equipment is required. Common hand tools are required to remove the front and rear panels, cables, etc. 2M repair capability is required for piece part repair/replacement. 2M repair tools are available on the Allowance Equipage List (AEL) for Tools and Equipment-2M Repair Stations, 2-670034080. A socket, 9Q 5120-00-227-8105 (11/32" - 1/4" SQ. Drive); handle, 9Q 5120-00-242-3256 (Spin Type - 1/4" SQ. Drive); and extension, 9Q 5120-00-227-8105 (2" LG. - 1/4" SQ. Drive) are required to loosen hex nuts securing the chassis to the case within the Power Source, PPS-400. These items are a part of wrench set, socket 1/4" SQ. Drive, 9Q 5120-00-081-2305, and will be added to the PRC-2000-2M System APL 00032540 by the end of calendar year 1996.

2.3 Supply Support.

2.3.1 General. The concept of supply support for the PRC-2000-2M System is aligned with the maintenance concept defined in paragraph 2.1.1. Consumable and repair/spare piece parts used to repair the PRC-2000 will be listed on APL 00032540. Repairable items within the PRC-2000-2M System are as follows:

NOMEN	PART NUMBER	SOURCE MAINTENANCE & RECOVERABILITY (SM&R)
PRC-2000-2M SYSTEM	8007-0161	PAOOD
PRC-2000, Power Source, PPS 400, 115V	7008-0187	PAOOD
PCB, Multifunction, PPS 400	6020-0074	PAOOD
PCB, Microprocessor, PPS 400	6020-0072	PAOOD
PCB, Display, PPS 400	6020-0073	PAOOD
SX-70, Extractor, Solder	6010-0077	PAOOO
SP-2, Sodr-Pen, 21V 48W	6025-0014	PBOOO
TJ-70, Thermojet, Mini	7023-0002	PAOOO
TP-65, Thermopik	7024-0001	PAOOO
TT-65, Thermotweez	7025-0001	PAOOO
HS-150, Hot Spot 150	7040-0002	PAOOD
PCB Unit, Main/Display, HS 150	6020-0070	PAOOD

2.3.2 Non-Standard Support. Initial downloads of 2M Program-funded pre-expended PRC-2000-2M System equipment/material will be supplied to each command to upgrade 2M electronic repair capabilities. The 2M ISEA will deploy PRC-2000s per SEA 0417 direction.

2.3.3 Support Planning. The Naval Inventory Control Point (NAVICP) (05914) will develop and maintain the APL. The 2M ISEA/PACE Inc. submitted Provisioning Technical Documentation (PTD) and Provisioning Parts Lists (PPLs) to NAVICP (05914) to develop an APL for the PRC-2000-2M System.

2.3.4 Supply Assistance. NAVICP (05914) is available for assistance on all items of the PRC-2000-2M System.

2.4 Packaging, Handling, Storage, and Transportation (PHS&T). The PHS&T concept for the PRC-2000-2M System utilizes established facilities (Government and/or Contractor) and applicable MILSPECS.

2.4.1 Packaging. The PRC-2000-2M System and related parts shall be preserved, packaged, packing, and marked as required in Defense General Supply Center (DGSC) Richmond, Contract No. DLA490-93-D-6081, Section D, DLA490-93-R-2242, (ASTM-D-3951-90).

2.4.2 Handling. The PRC-2000-2M System has no special handling requirements. Personnel associated with the 2M Program need to be aware of the ESD sensitive nature of the PCBs within the PRC-2000 and handle them with the appropriate precautions delineated in the Standard Maintenance Practices Miniature/Microminiature (2M) Electronic Assembly Repair (SE004-AK-TRS-010/2M, Work Package 005).

2.4.3 Storage. There are no special storage requirements. Adequate control must be maintained to ensure that the PRC-2000-2M System is secured to prevent use/misuse by unauthorized personnel.

2.4.4 Transportation. Acceptable transportation modes for the PRC-2000-2M System are rail, truck, air and water. The overall outside dimensions of the PRC-2000 will allow passage through standard shipboard doorways, arches, and hatches.

2.5 Technical Data.

2.5.1 Technical Manuals. TMs supporting the PRC-2000-2M System are listed below:

TITLE	MANUAL NO./NATIONAL STOCK NO.
*PRC-2000-2M System Electronic Rework Power Unit Operation and Maintenance Manual	S9665-CY-OMP-010/PRC-2000/U 0910-LP-730-6500

*This manual contains all of the following:

TITLE	MANUAL NO./NATIONAL STOCK NO.
PACE Inc. PRC 2000 System Operation & Maintenance Manual	5050-0313
PACE Inc. TP-65 ThermoPik Handpiece Operational Guidelines	5050-0295
PACE Inc. TT-65 ThermoTweez Handpiece Operation & Maintenance Manual	5050-0300
PACE Inc. SX-70 Sodr-X-Tractor Handpiece Operation & Maintenance Manual	5050-0312
PACE Inc. SP-1/SP-2 Sodr-Pen Soldering Iron Handpiece Operation & Maintenance Manual	5050-0366
PACE Inc. TJ-70 Mini ThermoJet Handpiece Operation & Maintenance Manual	5050-0350
PACE Inc. PRC 2000 Systems Service Manual	5050-0344
PACE Inc. PRC 2000-2M Systems PC Board Troubleshooting & HS 150 Calibration Procedure Service Manual Addendum	5050-0365
PACE Inc. PRC 2000-2M Systems Parts List Service Manual Addendum	5050-0373

One copy of either the PRC-2000-2M System Electronic Rework Power Unit Operation and Maintenance Manual (S9665-CY-OMP-010/PRC-2000/U) or all of the above listed PACE Inc. manuals will be furnished with each PRC-2000. Additional copies of the PRC-2000-2M System Electronic Rework Power Unit Operation and Maintenance Manual (S9665-CY-OMP-010/PRC-

2000/U) may be ordered via normal Navy supply requisitioning procedures. Additional copies of any of the above listed PACE Inc. manuals may also be ordered from:

PACE Incorporated
Sales Administration
9893 Brewers Court
Laurel, MD 20723-1990

(301) 490-9860
(301) 498-3252 Fax

2.5.2 Technical Data Repository. The 2M ISEA, will maintain a master file of engineering drawings, lists, manuals, logistical technical data and other PRC-2000-2M System documentation to include, supply support data and a Configuration Management Plan (CMP). Changes to TMs and engineering drawings will be coordinated between the manufacturer (PACE Inc.) and the 2M ISEA. The 2M ISEA will disseminate all changes to each operating site, in accordance with the NAVSEA Technical Manual Management Program (TMMP) (S0005-AA-PRO-010/TMMP), and the PRC-2000-2M System CMP (see PRC-2000-2M System ILSP, S9665-CY-ILS-010/PRC-2000/U, Appendix E).

2.6 Manpower and Personnel.

2.6.1 Manpower. Prior to fleet outfitting, it was determined that addition of the PRC-2000-2M System to the fleet inventory would not require additional personnel for operation. As a result, a HARDMAN analysis is not required. Current technical maintenance allowances for technical billets are sufficient for maintenance of the PRC-2000. Technician assignment for the 2M Work Station (PRC-2000-2M System) is a collateral duty.

2.6.2 Staffing. The 2M repair function is a duty performed by trained and certified technicians who are assigned a secondary Navy Enlisted Classification (NEC). As a result, there are billets identified specifically for 2M electronic repair technicians, inspectors, and instructors. The following NECs have been established for 2M:

NEC 9509 - 2M Instructor

NEC 9503 - Miniature/Microminiature Electronic Repair Inspector

NEC 9526 - Microminiature Electronic Repair Technician

NEC 9527 - Miniature Electronic Repair Technician

Training requirements are based on a minimum of one (1) 2M technician for each deployed 2M Work Station. Additional technicians per station require Type Commander (TYCOM) justification. Only 2M certified technicians with a minimum NEC of 9527, 9526, 9503, and/or 9509 may perform 2M repairs or operate the 2M equipment.

2.6.3 Navy Manning Document Update. Personnel currently trained, certified, and assigned to operate and maintain the 2M equipment (PRC-2000-2M System) are assigned a secondary NEC, as defined within Navy Training Plan (NTP) S-30-8711B. There are no planned manning document changes.

2.7 Training and Training Support.

2.7.1 Navy Training. Formal training for 2M electronics repair is accomplished by the Chief of Naval Education and Training (CNET) at six (6) training sites:

Fleet Training Center (FLETRACEN), San Diego, CA.
(Designated as the Course Curriculum Model Manager (C^2M^2))

FLETRACEN, Norfolk, VA.

FLETRACEN, Mayport, FL.

AFLOATRAGRU MIDPAC, Pearl Harbor, HI.

Naval Air Maintenance Training Group Detachment (NAMTRAGRUDET) 2004, Atsugi, Japan

NAMTRAGRUDET 1001, Whidbey Island, WA.

2.7.2 Navy Training Plan (NTP). An NTP, S-30-8711B, 2M Repair Technicians has been developed for the 2M Program. The 2M Program provides for the repair of Circuit Card Assemblies (CCAs) and Electronic Modules (EMs) in the fleet. The 2M Program supports the Chief of Naval Operations (CNO) philosophy of progressive depot level repair (PDLR) per OPNAVINST 4790.13. The operational fleet and direct fleet support activity requirements are documented in this NTP. This NTP will ensure that the appropriate numbers of trained 2M technicians are available to the fleet to support self-sustainability and the progressive repair of electronic equipment. Training on the PRC-2000-2M System is a part of the microminiature electronics repair curriculum (A-100-0073). The 2M instructor certifies those technicians who have successfully completed the course. The 2M Instructor will complete a Performance Information Memorandum (PIM), in accordance with BUPERSINST 1616.10. The completed PIM is signed by the 2M training site command representative and issued to the certifying technician for field service record entry (Page 4).

2.7.3 On-Board Training (OBT). OBT will not be provided to 2M technicians. The 2M NECs do not require Personnel Qualification Standards (PQS) due to the certification of 2M technicians.

2.7.4 Contractor Training. No contractor training is planned.

2.7.5 Training Support Requirements. One PRC-2000-2M System and associated support equipment is required for each technician under training at the 2M training sites. The 2M ISEA provided each 2M training site with the required PRC-2000s and associated equipment for the number and type of courses under their cognizance.

2.8 Related Programs.

2.8.1 Safety. Safety hazard warnings associated with the operation of the PRC-2000 are contained in the PRC-2000-2M System Electronic Rework Power Unit Operation and Maintenance Manual (S9665-CY-OMP-010/PRC-2000/U, Service Manual section, pages 16-18).

2.8.2 Configuration Management. The CMP generated by the 2M ISEA, details the plans and procedures for configuration management of the PRC-2000-2M System. See PRC-2000-2M System ILSP (S9665-CY-ILS-010/PRC-2000/U, Appendix E) for this plan. The PRC-2000-2M System CMP is a tailored version of the requirements found in SECNAVINST 4130.2 and NAVSEAINST 4130.12A as they relate to the 2M Program.